This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) A method for reducing discomfort caused by transcutaneous magnetic stimulation, comprising:

providing transcutaneous magnetic stimulation to a first location;

applying an electrical signal to a second location;

treating the first location with the transcutaneous magnetic stimulation; and

reducing the discomfort caused by transcutaneous magnetic stimulation at the second location.

2. (Original) The method of claim 1, wherein the electrical signal is a direct current signal.

3. (Original) The method of claim 2, wherein the direct current signal has a value in the range of 0-50 volts.

4. (Original) The method of claim 1, further comprising stimulating the second location with the electrical signal prior to providing the transcutaneous magnetic stimulation.

5. (Original) The method of claim 1, wherein the first location is a portion of a brain.

6. (Original) The method of claim 1, wherein the second location is proximate to the cutaneous location.

7. (Original) The method of claim 1, wherein the second location comprises tissue, nerves and muscle proximate to the cutaneous location.

8. (Original) The method of claim 1, wherein the electrical signal comprises at least one pulse.

9. (Original) The method of claim 1, further comprising constantly applying the electrical signal for at least 10 seconds.

10. (Original) The method of claim 1, further comprising providing at least one conductor to apply the electrical signal.

11. (Original) The method of claim 10, further comprising providing a current-carrying conductor and a ground conductor.

12. (Original) The method of claim 10, further comprising locating the conductor external to the second location.

13. (Original) The method of claim 10, wherein the conductors establish a voltage potential.

14. (Original) The method of claim 10, further comprising pulsing the conductor with a voltage that is derived from a current that is provided to the magnetic stimulation device.

15. (Original) The method of claim 1, further comprising adjusting one or more characteristics of the electrical signal as a function of the transcutaneous magnetic stimulation.

16. (Original) The method of claim 15, wherein the characteristics include at least one of the following: voltage amplitude, duration of pulse, number of pulses, pulse wave shape, value of reference voltage, variation of the frequency of the electrical signal.

17. (Original) The method of claim 16, wherein the variation of the frequency of the electrical signal corresponds to an activation response time of tissue at the second location.

18. (Original) The method of claim 1, further comprising reducing sensitivity to the transcutaneous magnetic stimulation via the electrical signal.

19. (Original) The method of claim 1, further comprising providing a drug at the second location.

20. (Original) The method of claim 19, wherein the drug comprises at least one of the following: analgesic, anesthetic, muscle relaxant, and paralytic agent.

21. (Original) The method of claim 1, wherein the first and second locations are the same.

22. (Original) The method of claim 1, further comprising creating an electrical bias at the second location, wherein the bias is equal to or greater than a depolarization level at the second location.

23. (Original) The method of claim 1, further comprising redistributing electrolytes at the second location and reducing the ability of the electrolytes from being transported across a cell membrane.

24. (Original) The method of claim 1, further comprising reducing a capability of anatomy at the second location from responding to an induced electric field created by the magnetic stimulation device.

25. (Original) A method for reducing discomfort caused by transcutaneous magnetic stimulation, comprising:

providing transcutaneous magnetic stimulation to a first location;

applying a substance to a second location;

treating the first location with the transcutaneous magnetic stimulation; and

reducing the discomfort caused by transcutaneous magnetic stimulation at the second location.

26. (Original) The method of claim 25, further comprising stimulating the second location with the substance prior to providing the transcutaneous magnetic stimulation.

27. (Original) The method of claim 25, wherein the first location is a portion of a brain.

28. (Original) The method of claim 25, wherein the second location is proximate to the cutaneous location.

29. (Original) The method of claim 25, wherein the second location comprises tissue, nerves and muscle proximate to the cutaneous location.

30. (Original) The method of claim 25, further comprising adjusting application of the substance as a function of the transcutaneous magnetic stimulation.

31. (Original) The method of claim 25, further comprising reducing sensitivity to the transcutaneous magnetic stimulation using the substance.

32. (Original) The method of claim 25, further comprising applying the substance topically to the second location.

33. (Original) The method of claim 25, wherein the substance comprises at least one of the following: analgesic, anesthetic, muscle relaxant, and paralytic agent.

34. (Original) The method of claim 25, wherein the substance provides cooling to reduce sensitivity.

35. (Original) The method of claim 25, further comprising applying the substance to a flexible pad and placing the flexible pad proximate the second location.

36. (Original) The method of claim 25, wherein the substance is a gel.

37. (Original) The method of claim 25, wherein the substance is a liquid, and further comprising spraying the liquid on the second location.

38. (Original) The method of claim 25, further comprising redistributing electrolytes at the second location and reducing the ability of the electrolytes from being transported across a cell membrane.

39. (Original) The method of claim 25, further comprising reducing a capability of anatomy at the second location from responding to an induced electric field created by the magnetic stimulation device.

40. (Original) A system for reducing discomfort caused by transcutaneous magnetic stimulation, comprising:

a transcutaneous magnetic stimulation device for treating a first location;

an electrical signal generator for providing an electric signal to a second location; and

at least one conductor in communication with the electrical signal generator, wherein the conductor carries an electrical signal to the second location.

41. (Original) The system of claim 40, wherein the electrical signal is a direct current signal.

42. (Original) The system of claim 41, wherein the direct current signal has a value in the range of 0-50 volts.

43. (Original) The system of claim 40, further comprising a timing device that activates the electrical signal generator prior to operating the transcutaneous magnetic stimulation device.

44. (Original) The system of claim 40, wherein the first location is a portion of a brain.

45. (Original) The system of claim 40, wherein the second location is proximate to the cutaneous location.

46. (Original) The system of claim 40, wherein the second location comprises tissue, nerves and muscle proximate to the cutaneous location.

47. (Original) The system of claim 40, wherein the electrical signal comprises at least one pulse.

48. (Original) The system of claim 40, wherein the electrical signal has a duration of at least 10 seconds.

49. (Original) The system of claim 40, wherein the conductors comprise a current-carrying conductor and a ground conductor.

50. (Original) The system of claim 40, wherein the conductors are external to the second location.

51. (Original) The system of claim 40, wherein the conductors create a voltage potential.

52. (Original) The system of claim 40, further comprising a feedback circuit in communication with the electrical signal generator and with the transcutaneous magnetic stimulation device, wherein the feedback circuit provides a signal to adjust a characteristic of the electrical signal generator in response to the operation of the transcutaneous magnetic stimulation device.

53. (Original) The system of claim 52, wherein the characteristic includes at least one of the following: voltage amplitude, duration of pulse, number of pulses, pulse wave shape, value of reference voltage, variation of the frequency of the electrical signal.

54. (Original) The method of claim 53, wherein the variation of the frequency of the electrical signal corresponds to activation response times of tissue at the second location.

55. (Original) The system of claim 40, further comprising reducing sensitivity to the transcutaneous magnetic stimulation via the electrical signal.

56. (Original) The system of claim 40, wherein the second location is relatively deeper than the first location.

57. (Original) The system of claim 40, wherein the magnetic stimulation device comprises a magnetic core that saturates at 0.5 Tesla or greater.

58. (Original) The system of claim 40, wherein the magnetic stimulation device comprises a magnetic core with a non-toroidal geometry.

59. (Original) The system of claim 40, wherein the electrical signal generator is a power supply.

60. (Original) The system of claim 40, wherein the electric signal creates a substantially constant electric field.

61. (Original) The system of claim 60, wherein the electric field provides an electrical bias to the second location.

62. (Original) The system of claim 61, wherein the electrical bias is equal to or greater than a depolarization level at the second location.

63. (Original) The system of claim 40, wherein the electric field redistributes electrolytes at the second location and reduces the ability of the electrolytes from being transported across a cell membrane.

64. (Original) The system of claim 40, wherein the electric field reduces a capability of cells at the second location from responding to an induced electric field created by the magnetic stimulation device.

65. (Original) The system of claim 40, wherein the electrical signal is time-varying.

66. (Original) The system of claim 40, wherein the time-varying electrical signal desensitizes the second location.

67. (Original) The system of claim 40, wherein the electrical signal stimulates the second location such that the second location cannot respond to the transcranial magnetic stimulation.

68. (Original) The system of claim 40, wherein the first and second locations are the same

69 (Original). The system of claim 40, further comprising a drug injection device that provides a drug at the second location.

70. (Original) The system of claim 69, wherein the drug comprises at least one of the following: analgesic, anesthetic, muscle relaxant, and paralytic agent.